Ari Pekka MÃ¤hÃ¶nen

List of Publications by Year
in descending order

60 papers	7,698 citations	94433 37 h-index	114465 63 g-index
72 all docs	72 docs citations	72 times ranked	7029 citing authors

#	Article	IF	Citations
1	In planta functions of the Arabidopsis cytokinin receptor family. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8821-8826.	7.1	610
2	Cytokinin Signaling and Its Inhibitor AHP6 Regulate Cell Fate During Vascular Development. Science, 2006, 311, 94-98.	12.6	530
3	A novel two-component hybrid molecule regulates vascular morphogenesis of the Arabidopsis root. Genes and Development, 2000, 14, 2938-2943.	5.9	499
4	APL regulates vascular tissue identity in Arabidopsis. Nature, 2003, 426, 181-186.	27.8	425
5	Callose Biosynthesis Regulates Symplastic Trafficking during Root Development. Developmental Cell, 2011, 21, 1144-1155.	7.0	394
6	A Mutually Inhibitory Interaction between Auxin and Cytokinin Specifies Vascular Pattern in Roots. Current Biology, 2011, 21, 917-926.	3.9	359
7	PLETHORA gradient formation mechanism separates auxin responses. Nature, 2014, 515, 125-129.	27.8	329
8	A Bistable Circuit Involving SCARECROW-RETINOBLASTOMA Integrates Cues to Inform Asymmetric Stem Cell Division. Cell, 2012, 150, 1002-1015.	28.9	273
9	Phloem-Transported Cytokinin Regulates Polar Auxin Transport and Maintains Vascular Pattern in the Root Meristem. Current Biology, 2011, 21, 927-932.	3.9	231
10	Generation of cell polarity in plants links endocytosis, auxin distribution and cell fate decisions. Nature, 2008, 456, 962-966.	27.8	228
11	Transcriptional regulation of nitrogen-associated metabolism and growth. Nature, 2018, 563, 259-264.	27.8	222
12	Genome sequencing and population genomic analyses provide insights into the adaptive landscape of silver birch. Nature Genetics, 2017, 49, 904-912.	21.4	221
13	High levels of auxin signalling define the stem-cell organizer of the vascular cambium. Nature, 2019, 565, 485-489.	27.8	213
14	Plasma membrane-bound AGC3 kinases phosphorylate PIN auxin carriers at TPRXS(N/S) motifs to direct apical PIN recycling. Development (Cambridge), 2010, 137, 3245-3255.	2.5	201
15	Plant vascular development: from early specification to differentiation. Nature Reviews Molecular Cell Biology, 2016, 17, 30-40.	37.0	195
16	Mobile PEAR transcription factors integrate positional cues to prime cambial growth. Nature, 2019, 565, 490-494.	27.8	195
17	Cytokinins Regulate a Bidirectional Phosphorelay Network in Arabidopsis. Current Biology, 2006, 16, 1116-1122.	3.9	194
18	Root Cap-Derived Auxin Pre-patterns the Longitudinal Axis of the Arabidopsis Root. Current Biology, 2015, 25, 1381-1388.	3.9	173

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19	Cytokinin and Auxin Display Distinct but Interconnected Distribution and Signaling Profiles to Stimulate Cambial Activity. Current Biology, 2016, 26, 1990-1997.	3.9	170
20	The PLETHORA Gene Regulatory Network Guides Growth and Cell Differentiation in Arabidopsis Roots. Plant Cell, 2016, 28, 2937-2951.	6.6	127
21	Arabidopsis PLETHORA Transcription Factors Control Phyllotaxis. Current Biology, 2011, 21, 1123-1128.	3.9	124
22	The Arabidopsis thaliana cysteine-rich receptor-like kinases CRK6 and CRK7 protect against apoplastic oxidative stress. Biochemical and Biophysical Research Communications, 2014, 445, 457-462.	2.1	121
23	Arabidopsis BIRD Zinc Finger Proteins Jointly Stabilize Tissue Boundaries by Confining the Cell Fate Regulator SHORT-ROOT and Contributing to Fate Specification. Plant Cell, 2015, 27, 1185-1199.	6.6	121
24	MultiSite Gateway-Compatible Cell Type-Specific Gene-Inducible System for Plants. Plant Physiology, 2016, 170, 627-641.	4.8	119
25	Vascular Cambium Development. The Arabidopsis Book, 2015, 13, e0177.	0.5	108
26	A PXY-Mediated Transcriptional Network Integrates Signaling Mechanisms to Control Vascular Development in Arabidopsis. Plant Cell, 2020, 32, 319-335.	6.6	103
27	<i>AINTEGUMENTA</i> and the D-type cyclin <i>CYCD3;1</i> regulate root secondary growth and respond to cytokinins. Biology Open, 2015, 4, 1229-1236.	1.2	89
28	Signs of change: hormone receptors that regulate plant development. Development (Cambridge), 2006, 133, 1857-1869.	2.5	85
29	A Gene Regulatory Network for Cellular Reprogramming in Plant Regeneration. Plant and Cell Physiology, 2018, 59, 770-782.	3.1	81
30	Transcriptional regulatory framework for vascular cambium development in Arabidopsis roots. Nature Plants, 2019, 5, 1033-1042.	9.3	81
31	An inducible genome editing system for plants. Nature Plants, 2020, 6, 766-772.	9.3	77
32	Auxin Influx Carriers Control Vascular Patterning and Xylem Differentiation in Arabidopsis thaliana. PLoS Genetics, 2015, 11, e1005183.	3.5	70
33	Complete substitution of a secondary cell wall with a primary cell wall in Arabidopsis. Nature Plants, 2018, 4, 777-783.	9.3	63
34	Cell-by-cell dissection of phloem development links a maturation gradient to cell specialization. Science, 2021, 374, eaba5531.	12.6	60
35	A network of transcriptional repressors modulates auxin responses. Nature, 2021, 589, 116-119.	27.8	56
36	Cytokinins initiate secondary growth in the Arabidopsis root through a set of LBD genes. Current Biology, 2021, 31, 3365-3373.e7.	3.9	46

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37	What is quantitative plant biology?. Quantitative Plant Biology, 2021, 2, .	2.0	43
38	Parsimonious Model of Vascular Patterning Links Transverse Hormone Fluxes to Lateral Root Initiation: Auxin Leads the Way, while Cytokinin Levels Out. PLoS Computational Biology, 2015, 11, e1004450.	3.2	38
39	Transcription factors <scp>PRE</scp>3 and <scp>WOX</scp>11 are involved in the formation of new lateral roots from secondary growth taproot in <i>A.Âthaliana</i>. Plant Biology, 2018, 20, 426-432.	3.8	38
40	Theoretical approaches to understanding root vascular patterning: a consensus between recent models. Journal of Experimental Botany, 2017, 68, 5-16.	4.8	35
41	Gradient Expression of Transcription Factor Imposes a Boundary on Organ Regeneration Potential in Plants. Cell Reports, 2019, 29, 453-463.e3.	6.4	33
42	Vision, challenges and opportunities for a Plant Cell Atlas. ELife, 2021, 10, .	6.0	31
43	The Making of Plant Armor: The Periderm. Annual Review of Plant Biology, 2022, 73, 405-432.	18.7	30
44	Integration of photosynthesis, development and stress as an opportunity for plant biology. New Phytologist, 2015, 208, 647-655.	7.3	25
45	A coherent feed forward loop drives vascular regeneration in damaged aerial organs growing in normal developmental-context. Development (Cambridge), 2020, 147, .	2.5	24
46	ELIMÃ„KI Locus Is Required for Vertical Proprioceptive Response in Birch Trees. Current Biology, 2020, 30, 589-599.e5.	3.9	24
47	Protocol: a method to study the direct reprogramming of lateral root primordia to fertile shoots. Plant Methods, 2016, 12, 27.	4.3	22
48	A bipartite transcription factor module controlling expression in the bundle sheath of Arabidopsis thaliana. Nature Plants, 2020, 6, 1468-1479.	9.3	20
49	Peptide encoding <i>Populus CLV3/ESRâ€RELATED 47</i> (<i>PttCLE47</i>) promotes cambial development and secondary xylem formation in hybrid aspen. New Phytologist, 2020, 226, 75-85.	7.3	13
50	Bisymmetry in the embryonic root is dependent on cotyledon number and position. Plant Signaling and Behavior, 2011, 6, 1837-1840.	2.4	12
51	Analysis of exocyst function in endodermis reveals its widespread contribution and specificity of action. Plant Physiology, 2022, 189, 557-566.	4.8	11
52	A core mechanism for specifying root vascular pattern can replicate the anatomical variation seen in diverse plant species. Development (Cambridge), 2019, 146, .	2.5	8
53	Means to Quantify Vascular Cell File Numbers in Different Tissues. Methods in Molecular Biology, 2022, 2382, 155-179.	0.9	4
54	Rootâ€type <scp>ferredoxinâ€NADP</scp>⁺ oxidoreductase isoforms in <scp><i>Arabidopsis thaliana</i></scp>: Expression patterns, location and stress responses. Plant, Cell and Environment, 2021, 44, 548-558.	5.7	3

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55	Growth-mediated sensing of long-term cold in plants. Nature, 2020, 583, 690-691.	27.8	3
56	A cellular passage to the root interior. Nature, 2018, 555, 454-455.	27.8	2
57	Editorial Overview: Growth and development. Current Opinion in Plant Biology, 2018, 41, iii-v.	7.1	1
58	Gradient Expression of Transcription Factor Imposes a Boundary on Organ Regenerative Potential in Plant. SSRN Electronic Journal, 0, , .	0.4	1
59	Plant Biology: Storage Root Growth through Thick and Thin. Current Biology, 2020, 30, R880-R883.	3.9	0
60	A Functionally Conserved Regulatory Module Confers Universal Regeneration Potential to Plant Tissues in Response to Injury. SSRN Electronic Journal, 0, , .	0.4	0